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EXAMINER
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ZHENG, JACKY X

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2625

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/607,057  
Filing Date: June 27, 2003  
Appellant(s): DE GRAAFF ET AL.

Paul C. Lewis (Reg. No. 43,368)  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed on September 8, 2009 and October 29, 2009  
appealing from the Office action mailed March 5, 2009.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief (subsequently corrected on October 29, 2009) is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**WITHDRAWN REJECTIONS**

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The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

The ground of rejection made under 35 U.S.C. 112, second paragraph with regard to claims 1-18, as set forth previously in the finality dated March 5, 2009, specifically in paragraphs 11-13 of pages 9-10. In details, appellant's further showing of paragraph [0031] from the original disclosure and the corresponding clarification provided, are found to be sufficient and persuasive, thus the section of rejection under 35 U.S.C. 112, second paragraph with regard to claims 1-18 is withdrawn before the Honorable Board.

#### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

#### **(8) Evidence Relied Upon**

EP 0589724 A2	Searby	03-1994
US 7,302,118 B2	Liu et al.	06-2002
US 6,795,209 B1	Patton et al.	10-1999
US 2002/0015447 A1	Zhou	02-2002
US 2003/0231801 A1	Baggs et al.	05-2002

#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-2 and 6-10, 15 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0589724 A2 (as admitted by Appellant in i.e. Para. [004] and [005] of Specification; instant prior art published on March 30, 1994, hereinafter as “Searby”) and further in view of Liu et al. (US Patent 7,302,118).

**With regard to claims 1 and 2**, the claim is drawn to an image scanning and processing system. Appellant's admission of prior art of following discussed limitations over Searby are evidenced in Appellant's original disclosure, such as in Para. [004] -[005], discloses: “checking whether the scan resolution is high enough to show all the detail in critical region”, “operator be able to select certain regions in the scanned images”, and “able to view them at the resolution used to scan the original” are known from EP 0589724 (“Searby”), and further discloses that this publication further disclose the limitations such as “electronic image processing system” with “storing unit”, “a viewing store”, “a monitor” for displaying, and image data being “down converted”, then “written to a destination area” performed by “the control processor” (*See Specification of instant Application, i.e. Para. [004] & [005]; also in Searby, i.e. Figure 1 and Claims 1 and 15*) (also see paragraphs 6-8 of "Responses to Arguments" section above for further details).

Searby does not *explicitly* disclose the limitation of extracting data encoding the preview image (or thumbnail image) directly from the stream of data.

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However, Liu et al. discloses an invention relates to a system and method for transforming a main image of a digital image, such as one stored in the EXIF (Exchangeable Image File) format, updating the metadata, including the thumbnail image, to correspond to the transformed main image (*see Liu et al., i.e. "Abstract"*). In details, Liu et al. specifically disclose the limitation of extracting thumbnail image, metadata, and etc. from EXIF data stream (*see Liu et al., i.e. Figure 4, Steps 220-222; also Fig. 3 and col. 6, ln 35-64*). More specifically, “a decoder object 212” (*in Fig. 3*) extracts from the EXIF stream 220 a main image, metadata, and thumbnail information, further detecting whether the thumbnail image extracted is in the JPEG compressed format in Step 223 (*in Fig. 4*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Searby to include the limitation of extracting data encoding the preview image (or thumbnail image) directly from the stream of data taught by Liu et al. It would have been obvious to one of ordinary skill in the art at the time of invention to have modified Searby by the teachings of Liu et al. to include the limitation of extracting data encoding the preview image (or thumbnail image) directly from the stream of data taught by Liu et al., thereby obtaining “the thumbnail representation associated with the main image remains unchanged...” (*col. 2, ln 8-9*) and “a system and method for properly transforming a digital image ... such that the transformed metadata accurately reflects transformation made to the main image” (*col. 2, ln 32-37*).

**With regard to claims 6-7, 8-10 and 17**, the claims are drawn to a method of scanning and processing an image and a method of selecting one of a plurality of master file. Appellant's admission of prior art of following discussed limitations over Searby are evidenced in

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Appellant's original disclosure, such as in Para. [004] -[005], discloses: “checking whether the scan resolution is high enough to show all the detail in critical region”, “operator be able to select certain regions in the scanned images”, and “able to view them at the resolution used to scan the original” are known from EP 0589724 (“Searby”), and further discloses that this publication further disclose the limitations such as “electronic image processing system” with “storing unit”, “a viewing store”, “a monitor” for displaying, and image data being “down converted”, then “written to a destination area” performed by “the control processor” (*See Specification of instant Application, i.e. Para. [004] & [005]; also in Searby, i.e. Figure 1 and Claims 1 and 15*).

Searby does not *explicitly* disclose the limitation of extracting data encoding the preview image (or thumbnail image) directly from the stream of data.

However, Liu et al. discloses an invention relates to a system and method for transforming a main image of a digital image, such as one stored in the EXIF (Exchangeable Image File) format, updating the metadata, including the thumbnail image, to correspond to the transformed main image (*see Liu et al., i.e. "Abstract"*). In details, Liu et al. specifically disclose the limitation of extracting thumbnail image, metadata, and etc. from EXIF data stream (*see Liu et al., i.e. Figure 4, Steps 220-222; also Fig. 3 and col. 6, ln 35-64*). More specifically, “a decoder object 212” (*in Fig. 3*) extracts from the EXIF stream 220 a main image, metadata, and thumbnail information, further detecting whether the thumbnail image extracted is in the JPEG compressed format in Step 223 (*in Fig. 4*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Searby to include the limitation of extracting data encoding the preview image (or thumbnail image) directly from the stream of data taught by Liu et al. It would

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have been obvious to one of ordinary skill in the art at the time of invention to have modified Searby by the teachings of Liu et al. to include the limitation of extracting data encoding the preview image (or thumbnail image) directly from the stream of data taught by Liu et al., thereby obtaining “the thumbnail representation associated with the main image remains unchanged...” (*col. 2, ln 8-9*) and “a system and method for properly transforming a digital image ... such that the transformed metadata accurately reflects transformation made to the main image” (*col. 2, ln 32-37*).

**With regard to claim 15**, the claim is drawn to the method according to claim 6, further comprising: image-processing the stream of data before creation of the preview image (*see Liu et al. i.e. Fig. 5, Step 274, “lossless transformation on main image”*).

3. **Claims 3, 11 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Searby and Liu et al. as applied to claims 1-2, 6-10, 15 and 17 above, and further in view of Patton et al. (U.S. Patent 6,795,209).

**With regard to claim 3**, the claim is drawn to the system according to claim 2, wherein the display unit provides a selection frame with which the user makes the user's selection of the section, the selection frame being resizable and movable.

Searby and Liu et al. do not *explicitly* disclose the limitations of “selection frame” being “resizable” and “movable”.

However, Patton et al. disclose the limitations of having a user interface for making a selection of a interested image, and capable of allowing the selection to be “resizable” and “movable” (*See i.e. Figure 7, and Column 8, lines 38-59*).



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Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have modified the teachings of Searby and Liu et al. It would have been obvious to one of ordinary skill in the art at the time of invention to have to include the limitations of “selection frame” being “resizable” and “movable” taught by Patton et al. modified the teachings of Searby and Liu et al. by the teachings of Patton et al. to include the limitations of “selection frame” being “resizable” and “movable” taught by Patton et al. *for allowing the easier accesses of modification of the images for the customers (See “Background of Invention” in Patton et al.).*

**With regard to claim 18**, the claim is drawn to the system according to claim 1, further comprising an inkjet print device for printing the preview image and/or the scanned image (*See Patton et al., i.e. Figure 3A, Part 44, a digital output device; column 7, lines 29-31, discloses that “the digital output device can also be an inkjet printer such as Hewlett Packard DeskJet 870xi).*

**With regard to claim 11**, the claim is drawn to the method according to claim 8, further comprising: providing a selection frame in the survey view, wherein an operator selects a region of interest by sizing and positioning the selection frame in the survey view.

Searby and Liu et al. do not *explicitly* disclose the limitations of “selection frame” being “resizable” and “movable”.

However, Patton et al. disclose the limitations of having a user interface for making a selection of a interested image, and capable of allowing the selection to be “resizable” and “movable” (*See i.e. Figure 7, and Column 8, lines 38-59).*

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have modified the teachings of Searby and Liu et al. to include the limitations of

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“selection frame” being “resizable” and “movable” taught by Patton et al. It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the teachings of Searby and Liu et al. by the teachings of Patton et al. to include the limitations of “selection frame” being “resizable” and “movable” taught by Patton et al. *for allowing the easier accesses of modification of the images for the customers (See “Background of Invention” in Patton et al.).*

4. **Claims 4 and 12-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Searby and Liu et al. as applied to claims 1-2, 6-10, 15 and 17 above, and further in view of Zhou (U.S. Pub. 2002/0015447).

**With regard to claim 4**, the claim is drawn to system according to claim 2, wherein the selected section of the preview image is converted to a different data format before being displayed.

Searby and Liu et al. do not *explicitly* disclose the limitations of converting the data format before previewing or being display.

However, Zhou discloses the limitations of converting of data format of the data collected by CCD and converted the data to NTSC format for displaying on the LCD screen (*See Zhou, Paragraph [0040]*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have modified the teachings of Searby and Liu et al. to include the limitations of converting the data format before previewing or being display taught by Zhou. It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the teachings of Searby and Liu et al. by the teachings of Zhou to include the limitations of

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converting the data format before previewing or being display taught by Zhou, *for proper previewing the image on LCD or TV (See Zhou, Paragraph [0040])*.

**With regard to claim 12**, the claim is drawn to the method according to claim 10, wherein the part of the scanned image representing the region of interest is converted to a different data format before being displayed.

Searby and Liu et al. do not *explicitly* disclose the limitations of converting the data format before previewing or being display.

However, Zhou discloses the limitations of converting of data format of the data collected by CCD and converted the data to NTSC format for displaying on the LCD screen (*See Zhou, Paragraph [0040]*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have modified the teachings of Searby and Liu et al. to include the limitations of converting the data format before previewing or being display taught by Zhou. It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the teachings of Searby and Liu et al. by the teachings of Zhou to include the limitations of converting the data format before previewing or being display taught by Zhou, *for proper previewing the image on LCD or TV (See Zhou, Paragraph [0040])*.

**With regard to claim 13**, the claim is drawn to the method according to claim 12, wherein the part of the scanned image representing the region of interest is compressed when converted to the different data format and decompressed before being displayed (*see Liu et al. i.e. Fig. 3 and 4, “decoder object”, “encoder object”, “convert thumbnail data to JPEG compressed format*).

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**With regard to claim 14**, the claim is drawn to the method according to claim 13, wherein the part of the scanned image representing the region of interest is chosen to be larger than a size leading to compression artifacts (*see Application Specification, i.e. Para. [004], admitted prior art, "it may be desirable, for instance to check whether the scan resolution is high enough to show all the details in a critical region ("region of interested" claimed)... thus desired that the operator be able to select certain in the scanned image, and be able to view them at the resolution used to scan the original..."*).

5. **Claims 5 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Searby and Liu et al. as applied to claims 1-2, 6-10, 15 and 17 above, and further in view of Baggs et al. (U.S. Pub. 2003/0231801).

**With regard to claims 5 and 16**, the claim is drawn to the system and the method according to claim 1 and claim 6 respectively. Searby and Liu et al. do not *explicitly* disclose the limitations of detection of the "artifacts" associated with preview images.

However, Baggs et al. disclose the limitations of detecting the presence of visual artifacts (*See Baggs et al., i.e. Claims 1, 23 and "Abstract"*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have modified the teachings of Searby and Liu et al. to include the limitations of detection of the "artifacts" associated with preview images taught by Baggs et al. It would have been obvious to one of ordinary skill in the art at the time of invention to have the teachings of Searby and Liu et al. by the teachings of Baggs et al. to include the limitations of detection of

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the “artifacts” associated with preview images taught by Baggs et al., *for improving the quality of a digital image of a document (See Baggs et al. i.e. Paragraph [0003])*.

#### **(10) Response to Argument**

1. Appellant's arguments regarding the rejection under 35 U.S.C. 103(a) filed on September 8, 2009 (and subsequently corrected the informalities on October 29, 2009) have been carefully and fully considered, however respectfully found to be not persuasive for at least the following reasons, and in turns respectfully submits to the Honorable Board to be sustained.

2. In regard to appellant's arguments (*under subtitle "Claims 1, 6 and 17" of the section "2. Rejection under 35 U.S.C. 103(a) over Searby in view of Liu" on pages 4-8*) made under 35 U.S.C. 103(a) over Searby and Liu et al., appellant mainly asserts that (a) “...*in the present invention, the extracted data from the data encoding the original scanned image is not extracted after the data encoding the original scanned image is stored in the storage means. Instead, the extracted data is extracted when the data of the original scanned image arrives at the controller; i.e. the extracted data is directly extracted from the data encoding the original scanned image on the fly. After the data is extracted, the extracted data is written to a thumbnail file, thereby creating the preview image" (see fifth paragraph of page 5 from the corrected Appeal Brief filed on October 29, 2009); and (b) Liu et al. “does not disclose or suggest extracting data encoding the preview image directly from the stream of data on the fly...”, and discussions of descriptions (i.e. paragraph 35-36, and drawings) from the specification.*

Applicant’s argument(s) are fully considered, however found to be not persuasive for at least the following reasons:

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a. With regard to argument (a), in response, appellant's arguments relating to the claim language of "on the fly" is currently not recited in the claim(s) for the version to be reviewed by the board at present; instead, specifically the version of claim dated January 14, 2009 is to be reviewed as the amendment of claim languages, *inter alia*, "on the fly" have not been entered as those amendments were not presented in a timely fashion after the finality when the prosecution is closed. Therefore, appellant's any assertion relating to "on the fly" is respectfully found to be not persuasive; and

b. in continuation of response (a) above, as argued by appellant repeatedly that in Liu et al., any data associated with a preview image is first stored and then extracted and processed (*see i.e. the remarks from the Appeal Brief, and the remarks filed on January 14, 2009, specifically the first paragraph of page 10*), Examiner first submits, at least that appellant admits that Liu et al. disclose the teachings of extracting of data associated with a preview image and to be processed; and with regard to the order in "storing" and "extracting", further turning to the version of claims currently to be reviewed at the board, reproduced with the exact claim languages from claim 1 below:

“Claim 1. An image scanning and processing system, comprising:

a scanner configured to generate a stream of data encoding a scanned image;

a controller configured to control and process data received from the scanner; and

**a file storage device configured to store a master file including data from the stream of data,**

wherein the controller is configured to create a preview image with a lower data size than the scanned image from at least part of the data encoding the scanned image, **wherein the controller is further configured to extract data encoding the preview image directly from the stream of data**, and write to the extracted data to a thumbnail file in order to create the preview image.”

For at least the exact claim language as presented, appellant's assertion of " *the extracted data from the data encoding the original scanned image is not extracted after the data encoding the original scanned image is stored in the storage means* " (or so-called "directly") is respectfully found to be not persuasive. In accordance with the claim languages of claim 1, the claim does not specify any specific order between "storing" at the claimed file storage device and "extracting" by the controller, and in view of broadly-claimed scope of claim 1, interpretation of either order is deemed to be proper by its broadest reasonable interpretations. As the claim at present, is *initially* recited with a file storage device configured to store a master file which includes the data from the stream of data, and *subsequently recites* the controller is further configured to extract data encoding the preview image directly from the stream of data, thus the stream of data is being interpreted as, first stored in a file storage device, and then extracted by the controller, to subsequently create the preview image, of which reads on the prior art of record, Liu et al. In addition, in accordance with the claim language (*i.e. in the second 'wherein clause' of claim 1*), "the data encoding the preview image" is being extracted from "the stream of data", and further "the stream of data" is being stored prior to "extracting" according to the interpretation of claim limitation(s) "*a file storage device configured to store a master file including data from the stream of data*". Therefore, the

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teachings of Liu et al. as also admitted by appellant that, in Liu et al. any data associated with a preview image is first stored and then extracted and processed (*admitted by appellant previously in, inter alia, the remarks filed on January 14, 2009, specifically first paragraph of page 10*), which clearly reads on the broadly-claimed scope of the claim(s) as with the order of, first stored and then extract.

b. With regard to appellant's argument (b), appellant's alleged arguments relating to "on the fly", "the extracted data from the data encoding the original scanned image is not extracted after the data encoding the original scanned image is stored in the storage means" and etc. are respectively considered to be not persuasive and/or without factual basis over the *exact* claim languages. Such assertions or descriptions have neither being amended into and presented with a timely fashion to be entered for, nor of such are required specifically by the broad scope of the current claim(s). In addition, as the claims are interpreted in light of the specification, however limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore, for at least the reasons above and/or ones set forth previously, the rejections made under 35 U.S.C. §103(a) over Searby and Liu et al. with regard to claims 1-2, 6-10 and 15-17 are remained proper and therefore respectfully submit to the Honorable Board to be sustained.

3. In regard to appellant's arguments with regard to corresponding dependent claims 2-5 and 7-18 (*from page 8-9*), appellant asserts that the claims are allowable *merely* based on their



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respective dependency from the independent claims, since the rejection of the independent claims are maintained for reasons stated above, the grounds of rejection for claims 2-5 and 7-18 are also maintained since applicant has not pointed to the deficiencies of the rejection, and therefore respectfully submit to the Honorable Board to be sustained.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jacky X. Zheng/

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Jacky X. Zheng  
Examiner, Art Unit 2625  
Date: December 2, 2009

/Mark K Zimmerman/  
Supervisory Patent Examiner, Art Unit 2625  
Conferees:

/MZ/

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Mark K. Zimmerman  
Supervisory Patent Examiner, Art Unit: 2625  
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